



Let's build a smarter health system.



**IBM + Google**

**a collaboration to empower the patients and personal health records**

**pHealth 2009, Oslo**

**IBM**

## Agenda

- Importance of Home Health Care and a smarter approach
- IBM + Google
- Continua Health alliance and open standards
- Conclusions

## Importance of a New Paradigm for Home Health Care

- Economics
  - The cost of healthcare is rising (US ~16%, NO ~ 9% of GDP)
  - Chronic diseases account for as much as 75% medical care costs
- Demographics
  - Life expectancy across OECD countries reached 78.3 years in 2004, up from 68.5 in 1960.
- Key Challenge
  - Providing Quality care for a growing elderly population with an increased proportion of chronic disease with limited resources



## Achieving smarter outcomes in Healthcare

### **SMART IS ...**

Monitoring patients at home and detecting an adverse reaction to a new prescription.

### **SMART IS ...**

Letting your medical devices populate your personal health record for you



### **SMART IS ...**

A sensor enriched, patient-centric dashboard that provides a healthcare organization improved visibility for evidence-based care

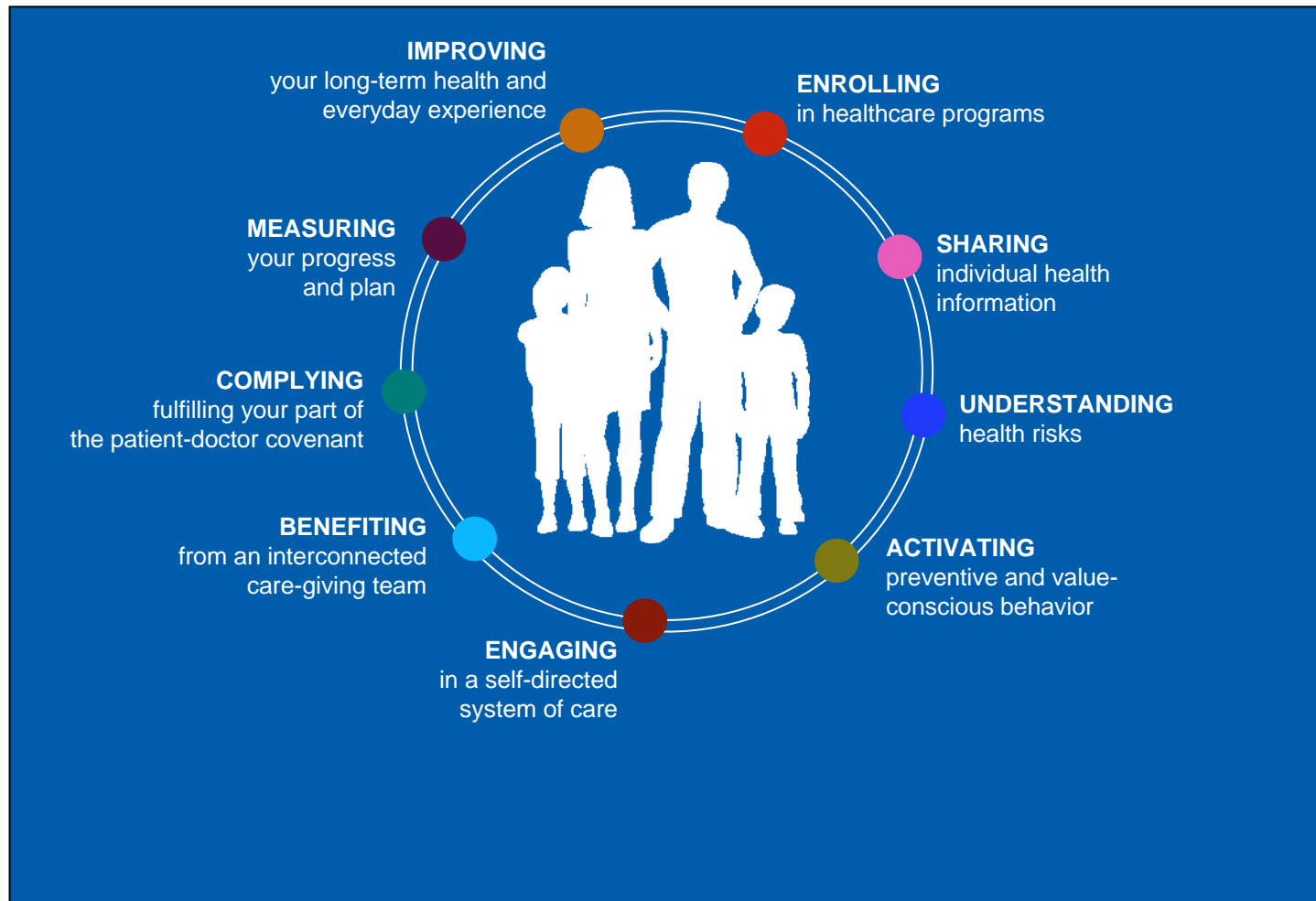
### **SMART IS ...**

Identifying preventable health issues before a patient arrives at the ER






At the center of **smarter healthcare** is an increasingly more personalized experience.



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Profile summary  Print

[Notices](#)

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 [Profile details](#)

[Age, sex, height...](#)

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[Medications](#)


[Allergies](#)

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Caring for someone?

[Add a profile for them](#)



**[Add to this Google Health profile](#)**

Learn about your health issues and find helpful resources



**[Import medical records](#)**

Copy and get automatic updates of your records




**[Explore online health services](#)**

Find online tools for managing your health



**[Find a doctor](#)**

Search by name, location, and specialty

 No items have been added to this profile. Profiles can contain:

- Condition
- Medications
- Allergies
- Procedures
- Test results
- Immunizations

[Add to this profile](#)

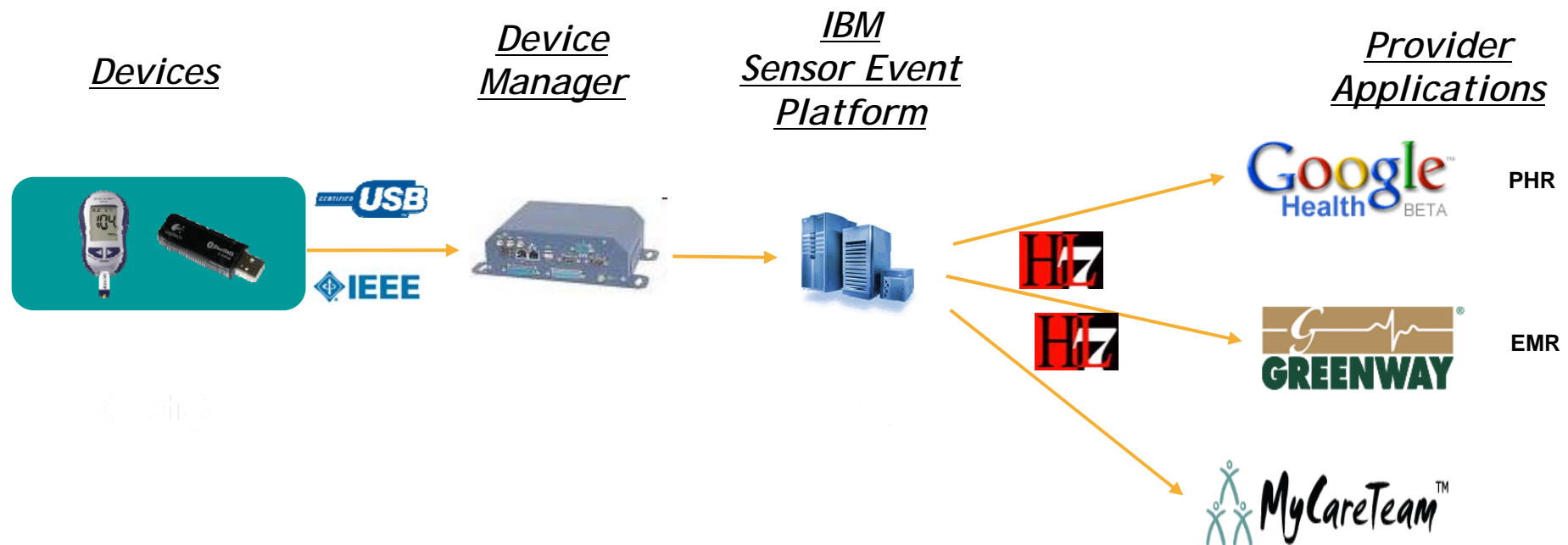


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## Connected Personal Health example

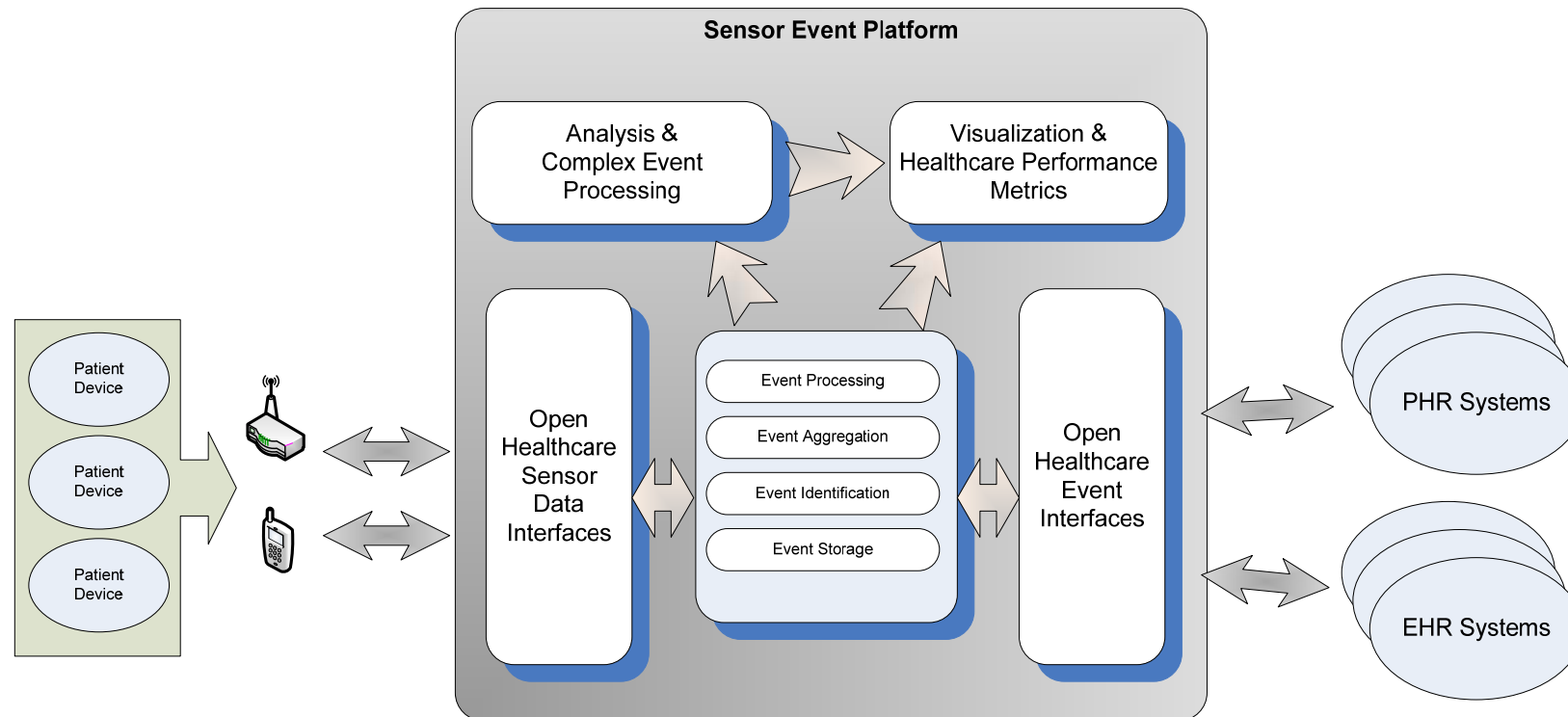


IBM Continua  
demonstration at HIMSS  
2009  
Booth # 1468





# IBM Sensor Event Platform for Healthcare



## Sensor Event Platform

- Software to integrate events from all types of medical devices
- Provides a platform to aggregate, analyze and visualize events
- Collect and correlate data and events from sensors and repositories, both local and remote (PHRs, EHRs, etc.)
- Standards-based: Continua, IHE, HL7, SOA





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[Read about health topics »](#)

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## Continua Demo

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**Test results**

[Immunizations](#)

[Add to this profile](#)

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[Explore health services](#)

[Continua Demo](#)

[Medical contacts](#)

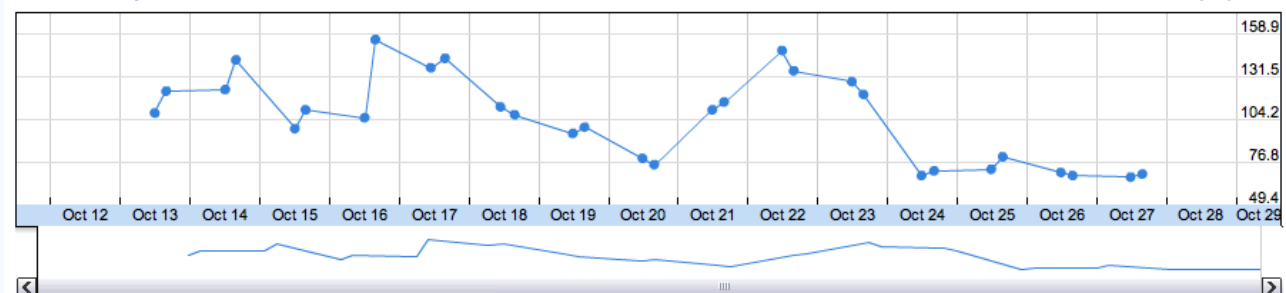
### Test results [Add test results to profile](#)

[Print](#)

Name	Result	Normal	Test date	Ordered by	Received from	Record
<input type="checkbox"/> Blood glucose status	69 mg/dL		Oct 27, 2008		User-entered Oct 27, 2008	<a href="#">Add record</a> <a href="#">Edit</a> <a href="#">Delete</a>

Zoom to: [1 Day](#) [1 Week](#) [1 Month](#) [1 Year](#) [All](#)

View: [Graph](#) | [Table](#)



<input type="checkbox"/> Body Temperature	41.34 [degF]	Jan 20, 2009	User-entered Jan 20, 2009	<a href="#">Add record</a> <a href="#">Edit</a> <a href="#">Delete</a>
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Basfakta

**Hälsa**

Sjukvård

Tandvård

Övrigt

**Friskvård**

Behandlingar

Tester

Kvinna

Ögon



## Hälsa > Friskvård

sök efter...

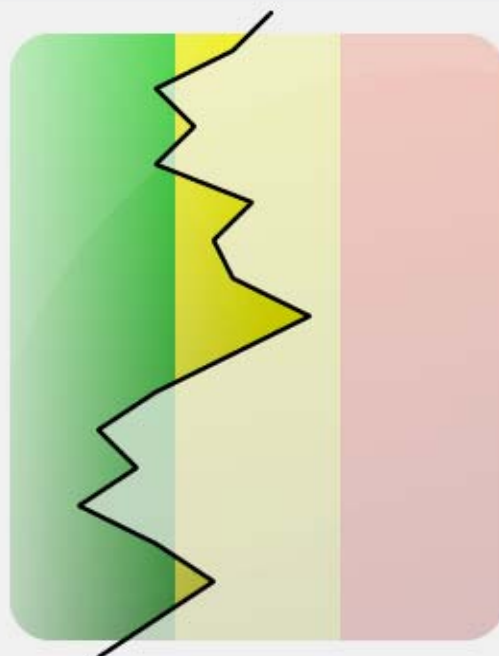


Skicka...

Skriv ut...

### Friskprofil: Graf ▾

Motion  
Mat  
Alkohol  
Tobak  
Hur mår jag  
Trivsel på arbetet  
Stress på arbetet  
Stress hemma  
Kondition  
BMI  
Syst. blodtryck  
Dist. blodtryck  
Kolesterol  
HDL  
Triglycerider  
Blodsocker



Visa historik

Ändra...

### Vikt och motion: Viktgraf ▾

Vikt (kg)

70

60

50

40

30



### Nuvarande längd och vikt

Vikt (kg)

Längd (cm)

Visa historik

Spara



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## Standards are emerging to make this easier



- Continua is a non-profit open industry alliance of healthcare and IT companies dedicated to advancing the state of the art of personal telehealth:
  - “Fostering independence through establishing a system of interoperable personal telehealth solutions that empower people and organizations to better manage health and wellness.”
  - > 175 members (covering spectrum of healthcare solutions)
- Continua selects and drives standards to achieve this mission in three domains
  - Health & Wellness
  - Chronic Disease Management
  - Elderly Monitoring



## Conclusions

Open standards and Sensor Solutions can be a key enabler for Smarter Healthcare



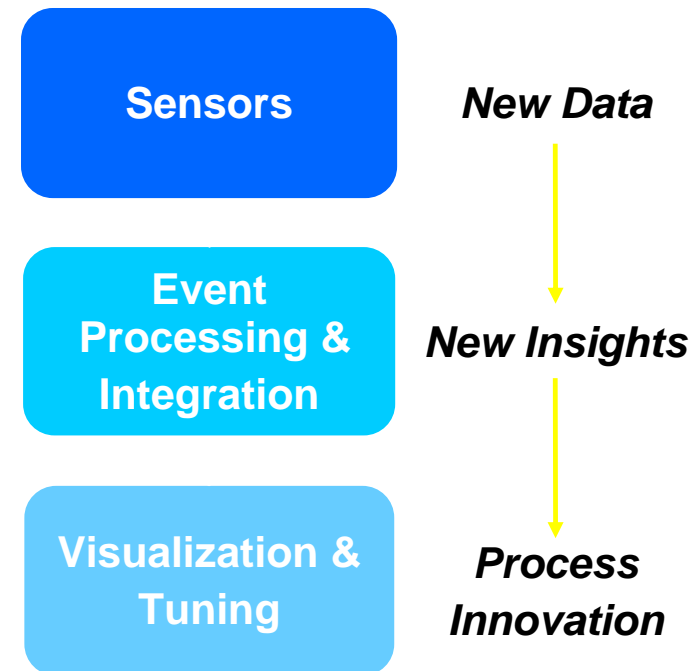
**INSTRUMENTED**



**INTERCONNECTED**



**INTELLIGENT**



More information:

<https://iheprofiles.projects.openhealthtools.org/>



IBM.

# Thank you!

Stefan Ohlsson  
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IBM Nordic

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The planet will be instrumented,  
interconnected, intelligent.  
People want it. We can do it.

Sensing is believing. We help clients across a variety  
of industries use RFID and sensing technologies.

→ Discover sensor solutions for a smarter planet